

# Clinical Clerkship Curriculum Obstetrics and Gynecology



**AUC Clinical Curricula Guide to Duty Hours, Minimum Experience and Procedure Thresholds, Learner to Teacher Ratios, and Recognition**

- I. In all rotations, AUC expects that students will follow the most recent ACGME duty-hour requirements for PGY-1 level residents, as specified for each rotation area.
- II. In all rotations, AUC expects that students who are required to be on call will be accommodated as required by the ACGME for residents on call.
- III. Each core rotation will indicate a minimum threshold experience to help prepare the student gain competency:
  - OB/GYN – Complete 3-5 vaginal deliveries and scrub-in on at least two Cesarean sections over the duration of the six-week clerkship; perform adequate pelvic examination and take appropriate samples as outlined in the syllabus.
- IV. Each student must have adequate direct exposure with an attending and/or resident physician during the majority of the rotation. There should be no more than two learners (student and any other learner on the service) per resident or three learners for an attending. Lectures, library, or video are considered direct exposure.
- V. Each student must have recognition of the site where training is being performed. This includes direct knowledge of the student being trained at the site with written verification and appropriate badging of the student as a visiting student or other appropriate designation.

## **Obstetrics and Gynecology Student Core Clerkship Curriculum**

Obstetrics and gynecology is a core clerkship of six weeks duration. All Ob/Gyn core clerkships are conducted at teaching hospitals that have an ACGME-accredited residency in Ob/Gyn; at a Federally Qualified Health Center that is listed by ACGME as a participating institution in an Ob/Gyn residency program where parts of the clerkship are conducted in a hospital or outpatient site by board-certified obstetricians or gynecologists; or in the U.K. at a SIFT-approved hospital that has an Ob/Gyn department with certified obstetricians and gynecologists. An extensive curriculum has been developed and frequently revised. The goal of the curriculum is to present material related to obstetrics, gynecology and women's health care that will be required for any physician regardless of the specialty s/he chooses to pursue. Since the basic principles of most disease processes are covered in medicine, surgery, psychiatry and pediatrics, the emphasis for Ob/Gyn is on the differences caused by gender or the pregnant state. Conditions related specifically to women; whether disease process or physiologic state, are covered in more detail.

There is an effort to encourage thinking in terms of basic principles with the goal to understand the principles, know where to find specific information and recognize the limits of one's knowledge and skills. Ambulatory primary care is emphasized as an important part of women's health care.

This curriculum is intended to serve as a basis for instruction to medical students during their core clerkship in Ob/Gyn. It is intended to provide a common level of knowledge, proficiency and procedural competency for any student at any training site. It incorporates key strategic goals:

1. Vertical integration of basic science and clinical curricula.
2. Competency-based learning and evaluation.
3. Bridging of typical resident curriculum guidelines including ACGME competencies.
4. Adherence to current standards in medical education and the practice of medicine.

The curriculum is not intended to list or describe every common entity seen in the practice of Ob/Gyn. It is, however, expected that the student will have exposure to a wide variety of medical problems encountered in the practice of obstetrics, gynecology and women's primary health care in both the hospital and ambulatory settings. It is also anticipated that students will learn through didactic lectures and independent reading the specific issues required to deal with the clinical problems presented.

## COMPETENCIES

### PATIENT CARE

Students must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Students should develop and demonstrate specific skills, including:

1. Obtain a patient's history in a logical, organized and thorough or appropriately focused manner including the details of a gynecologic, obstetric and sexual history.
2. Perform a physical examination for a patient in a logical, organized, respectful and thorough or appropriately focused manner. Students should be able to perform a breast and pelvic examination and obtain specimens for common tests. (See Appendix 1)
3. Develop a problem list based on findings from the history and physical examination in which problems are prioritized according to acuity.
4. Based on the problem list, decide which diagnostic tests should be done and in what order they should be done in order to arrive at a diagnosis. Students should be aware of the likelihood of a test providing useful results at a reasonable cost.
5. Interpret specific diagnostic tests and procedures that are ordered to evaluate patients who present with a medical problem related to obstetrics, gynecology or women's primary care.
6. Tests specific to the specialty of Ob/Gyn including a general working knowledge of fetal heart rate tracing, pelvic ultrasound, interpretation of Pap smear results, etc. (See Appendix 1)
7. Formulate an initial plan of management that includes a plan for monitoring progress.
8. Present (both verbally and in writing) the history and physical examination findings, a problem list, recommended diagnostic procedures and a plan of management in an organized and concise manner.
9. Learn what screening procedures need to be performed based on age and risk factors and how to follow up on the screening procedures.
10. Demonstrate the ability to perform certain basic procedures. (See Appendix 1)
11. Demonstrate knowledge of and ability to observe universal precautions.

#### ***Potential Evaluation Methods:***

Direct observation of history and physical on patient or OSCE, chart review, case presentation, global rating and simulation lab.

### MEDICAL KNOWLEDGE

Students must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g., epidemiological and social-behavioral) sciences and the application of this knowledge to patient care in obstetrics, gynecology and women's primary care. Students should be able to define, describe and discuss:

1. The methods of deductive reasoning, forward thinking and pattern recognition in clinical decision-making.
2. How critical pathways or practice guidelines can be used to guide diagnostic test ordering and therapeutic decision-making.

3. The indications for testing, range of normal, critical values, pathophysiologic implications of abnormal results and the relative cost of diagnostic tests and procedures commonly encountered in the practice of obstetrics, gynecology and women's primary care.
4. The basic ethical principles in medicine, including autonomy, beneficence, nonmaleficence, truth telling and confidentiality and respect for autonomy (informed choice).
5. The general types of preventive care issues that should be addressed on a routine basis in adult patients.  
This should include Pap smears, mammography, colonoscopy, bone density screening, etc. (See Appendix 1)
6. An approach to the following types of patients with a symptom, sign or abnormal laboratory value: abdominal pain, pelvic pain, vaginal discharge, altered mental status, anemia, back pain, chest pain, cough, dyspnea, dysuria, fever, fluid/electrolyte/acid-base disorders, gastrointestinal bleeding, rash and pregnant patients with a symptom, sign or abnormal laboratory value.
7. An approach to the understanding, diagnosis, work-up, and treatment of patients with a known condition: pelvic pain, vaginal discharge, abnormal vaginal bleeding, incontinence, abnormal pap smear, pelvic inflammatory disease, menopausal symptoms, desire for contraception, HIV infection, obesity, smoking cessation, substance abuse and venous thromboembolism.
8. The application of knowledge of anatomy, physiology, biochemistry, pathophysiology, pharmacology, microbiology and epidemiology to clinical problem solving. (See Appendix 2)
9. The key sources for obtaining updated information on issues relevant to the medical management of the adult patient and key questions to ask when critically appraising medical articles.

***Potential Evaluation Methods***

Chart review, case presentations, simulations, global evaluation.

**PRACTICE-BASED LEARNING AND IMPROVEMENT**

Students must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Students are expected to:

1. Demonstrate self-directed learning.
2. Acknowledge gaps in knowledge and skills and develop a plan to address them.
3. Locate, appraise (using knowledge of study design and statistical methods), and assimilate evidence from scientific studies related to their patients' health problems.
4. Use information technology to support patient care decisions and patient education.
5. Summarize and present to colleagues what was learned from consulting the medical literature.
6. Seek feedback regularly and respond appropriately and productively.

***Potential Evaluation Methods***

Review study plan, chart review, global evaluation, journal club presentations.

### **INTERPERSONAL AND COMMUNICATION SKILLS**

Students must be able to demonstrate interpersonal and communication skills that result in effective information exchange with patients, patients' families, and professional associates. Students are expected to:

1. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
2. Prepare and present, written and oral, comprehensive and focused, inpatient and outpatient cases that include all relevant features, as clinically appropriate.
3. Demonstrate respect for patient's privacy when dealing with protected health information and follow Health Information and Portability and Accountability Act standards. Be sensitive to and protective of the very personal information obtained in a gynecologic and sexual history.
4. Work effectively with others as a member of a health care team, incorporating skills in inter-professional communication and collaboration.
5. Develop a therapeutic and ethically sound relationship with patients.
6. Recognize the importance of patient preferences, perspectives, and perceptions regarding health and illness, and develop strategies to successfully negotiate treatment plans and patient adherence.

#### ***Potential Evaluation Methods***

Global evaluation, observation of history and physical, OSCE.

### **PROFESSIONALISM**

Students must demonstrate a commitment to carrying out the responsibilities as a student and future professional, adherence to ethical principles, and sensitivity to a diverse patient population. Students are expected to:

1. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
2. Demonstrate professional behavior in areas of reliability, honesty, responsibility, helpfulness, selflessness, appearance, and initiative.

#### ***Potential Evaluation Methods:***

Observation and rating by attending physician, residents, nurses, and or patients (global rating), OSCE and chart review.

### **SYSTEMS-BASED PRACTICE**

Students must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Students are expected to:

1. Understand the concept of systems-based practice and how other professionals, organizations, and society affect patient care.
2. Understand barriers to care faced by patients in the community setting and the key personnel and programs in and out of the hospital that may be able to contribute to the ongoing care of patients (i.e., home health providers, social workers, case managers, community health organizations).
3. Demonstrate a commitment to cost-effective health care and resource allocation that

does not compromise the quality of care.

4. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
5. Understand the principles of clinical quality improvement and the analysis and improvement of systems to address common quality problems (e.g. treatment delays, medication errors, failure to use evidence-based diagnostics/treatments, failure to provide preventive care).

#### **Potential Evaluation Methods**

Chart review, case presentations, OSCE, global rating.

#### **Didactic Teaching Sessions**

Students are expected to attend all lecture sessions unless “scrubbed in” or involved in treating an acute patient situation. These lectures may include (but are not limited to):

- Attending-level rounds on a daily basis
- Morning report
- Noon lecture
- Grand rounds
- Lectures for core clerkship students
- Journal clubs on an assigned service
- Attending/resident/student team approach, with teacher-learner ratio within ACGME guidelines.

#### **Work Hours**

Students are encouraged to take night call with their team, but must never exceed ACGME duty hour standards for residents.

#### **Resources**

1. Simulation lab
2. Library
3. Internet access and medical data base availability
4. Recommended reading
  - a) A condensation of medical student educational objectives can be found in the following student textbooks

Beckman CR, Ling FW, Barzansky BM, Herbert WN, Laube DW, Smith RP, *Obstetrics and Gynecology*, 6th Edition, 2009, Lippincott, Williams and Wilkins

Hacker NF, Gambone JC, Hobel CJ, *Essentials of Obstetrics and Gynecology*, 5th Edition, 2010, Saunders/Elsevier

#### **Final evaluation and outcome measure:**

NBME subject exam and attending written evaluation and narrative report.

## APPENDIX 1

### Procedure skills

All procedures should be performed under the direct supervision of an experienced physician. Although junior residents are qualified to supervise some procedures, in general supervision should be by a senior resident or an attending physician.

1. Pelvic examination of the non-pregnant patient
  - a. Complete examination including inspection of the vulva, vagina and cervix, bimanual examination with palpation of all pelvic organs and recto-vaginal examination. (The ability to recognize that an abnormality is present is more important than identification of the specific abnormality.)
  - b. Ability to obtain specimens such as an adequate pap smear and cultures.
  - c. Obtain, examine and interpret saline and KOH wet preparations for the diagnosis of monilia, bacterial vaginosis, and Trichomonas.
  - d. Obtain and interpret vaginal pH.
2. Breast examination and patient instruction in self breast examination
3. Pelvic examination of the pregnant patient during the antepartum period and during labor
  - a. Obtain pap smear, cultures, wet mount, and appropriate samples to test for the presence of amniotic fluid.
  - b. Determine the consistency, dilation and effacement of the cervix and estimate the station of the presenting fetal part.
  - c. Know the contraindications to pelvic examination in the pregnant patient.
4. Abdominal examination of the pregnant patient to determine the fetal position and lie.
5. Auscultation of fetal heart tones.
6. Evaluate a recording of fetal heart tones, determine whether it is normal or abnormal and recognize the common abnormalities.
7. Observe trans-abdominal and vaginal ultrasound in both the non-pregnant and pregnant patient including determination of fetal position, placental location, and biophysical profile.
8. Observe placement of fetal scalp electrode and intrauterine pressure catheter.
9. Assist with vaginal delivery and be familiar with the maneuvers performed in the course of a normal delivery. It is anticipated that students will be able to perform at least 3 – 5 deliveries under direct hands on supervision by a resident or attending.
10. Second assist at Cesarean deliveries and be familiar with the anatomy and the details of the procedure.
11. Assist at other operative procedures and be familiar with the procedure, the reason for performing the procedure and the complications that may be encountered.
12. Follow patients postpartum and postoperatively with the residents and be aware of the patient's status daily.
13. Observe circumcision of the newborn.

## APPENDIX 2

## **Basic physiology**

In order to understand the basic physiology of pregnancy and diseases of women, it is necessary to have an understanding of the ovulation cycle and an appreciation for the processes involved when abnormal function occurs. The student should be familiar with the following:

1. Basic endocrinology and physiology of the menstrual cycle.
2. Endocrine and physiologic mechanisms involved in the transition to pregnancy.
3. Obstetrics
  - a. Basic information regarding obstetrics involves the physiologic changes associated with pregnancy and how the pregnant woman differs from the non-pregnant woman. The student should also have an understanding of the physiologic and mechanical processes involved in labor and delivery, the changes that occur at and following delivery and the changes that occur in the newborn at and immediately following delivery.
4. Gynecology
  - a. The student should be able to obtain a gynecologic history, assess gynecologic complaints and order appropriate laboratory and imaging studies to arrive at a working diagnosis. Since many gynecologic complaints are related to medical and surgical disorders, it is necessary to obtain a complete database and perform a thorough physical examination on all patients.

## **APPENDIX 3**

### **Physiologic changes and disease entities**

#### **OBSTETRICS**

1. Physiologic changes of pregnancy
  - a. Maternal-fetal physiology
    - i. Changes in the maternal cardiovascular, pulmonary, renal, gastrointestinal, and endocrine systems.
    - ii. Growth and development of the fetus, the fetal circulation and the fetoplacental circulation.
  - b. Diagnosis of pregnancy
  - c. Immunology of reproduction
2. Labor and Delivery
  - a. Definition, diagnosis, stages, course and management of normal labor.
  - b. Indications for augmentation and induction of labor and techniques and medications commonly used.
  - c. Biochemical and electronic techniques used to monitor the course of labor and maternal and fetal status.
  - d. Pain control during labor, delivery and postpartum.
  - e. Abnormalities of the labor process due to abnormal uterine function, pelvic anatomy and/or fetal size, position or presentation.
  - f. Abnormal presentation and/or abnormal fetus
  - g. Multiple pregnancy and the effects on labor, delivery and postpartum care.
3. Abnormalities of pregnancy—etiology, diagnosis and management
  - a. Rhesus incompatibility

- b. Abortion;
  - i. Threatened
  - ii. Incomplete
  - iii. Complete
  - iv. Missed
  - v. Induced
- c. Ectopic pregnancy; diagnosis and principles of medical and surgical management.
- d. Gestational trophoblastic disease
- e. Intrauterine growth restriction
- f. Oligohydramnios and polyhydramnios
- g. Premature rupture of the fetal membranes.
- h. Preterm labor and delivery of a premature infant.
- i. Post-term pregnancy
- j. Third trimester bleeding and abnormalities of the placenta including;
  - i. Placenta previa
  - ii. Premature separation of the normally implanted placenta
  - iii. Vasa previa.
- k. Intrauterine fetal death.
- 4. Postpartum changes
  - a. Management of the third stage of labor and the immediate postpartum period.
  - b. Diagnosis, management and prevention of post-partum hemorrhage.
  - c. Post partum care following an uncomplicated delivery including nursing and the expected physiologic and involucional changes.
  - d. Common postpartum complications; hemorrhoids, perineal and episiotomy pain, varicose veins, constipation
  - e. Potentially serious post-partum complications; infection, thrombosis, depression
- 5. Newborn
  - a. Assessment and initial care of the newborn.
  - b. Principles of newborn resuscitation and conditions that require immediate intervention.
- 6. Diseases peculiar to pregnancy
  - a. Understand the diagnosis, management and maternal and fetal complications of pregnancy induced hypertension, preeclampsia and eclampsia.
  - b. Rh iso immunization and its prevention.
  - c. Effect of pregnancy on other diseases and the effect of other diseases on the course of pregnancy. Common medical and surgical problems including anemia, diabetes, urinary tract disease, liver disease, cardiac disease, asthma, infectious disease, autoimmune disease, substance abuse, acute abdominal symptoms and trauma.
- 7. Statistics
  - a. Be aware of basic statistics concerning pregnancy and its complications.
- 8. Basic anatomy
  - a. Knowledge of pelvic anatomy as it relates to pregnancy, labor and delivery and gynecologic disease and surgery.

## GYNECOLOGY

1. Normal physiologic events and associated abnormalities

- a. Physiologic and psychological events associated with puberty and the ages at which the changes normally occur.
  - b. Abnormalities of pubertal development including delayed and precocious development
  - c. The characteristics of a normal menstrual cycle and specific abnormalities that can occur in the bleeding pattern.
    - i. Know the normal premenstrual changes that accompany the menstrual cycle in most women and understand the concept of premenstrual syndrome, its diagnosis and management.
    - ii. Define dysmenorrhea, know the etiologic factors involved and describe diagnostic and therapeutic approaches.
  - d. Physiologic changes which occur with menopause and the implications of those changes in relation to the future health and general well-being of the individual.
    - i. Know the indications, contraindications, risks, benefits, and methods of hormone replacement therapy.
    - ii. Be aware of the surveillance techniques used to follow older women on an annual basis.
  - e. Understand the processes involved in normal fertility, know the causes of infertility, and describe the usual diagnostic and therapeutic techniques used.
  - f. Know the different methods available for family planning. Describe the mechanism of action and degree of effectiveness, indications and contraindications, advantages and disadvantages and reversibility of the various methods of contraception and of male and female sterilization.
2. Abnormalities of the ovulation cycle
- a. Define amenorrhea, and know the etiologies, evaluation and treatment
  - b. Understand the mechanisms involved in chronic anovulation (polycystic ovary syndrome) and the effect on the menstrual cycle.
  - c. Understand the long-term effects of unopposed estrogen stimulation.
  - d. Describe the role of prolactin in the normal nursing process and understand the etiology and consequences of hyperprolactinemia.
  - e. Define hirsutism and virilization and describe the causes and evaluation of increased hair growth in the female.
3. General gynecologic problems
- a. Understand the principles involved in the common infectious processes seen in women
    - i. Know the etiology, methods of diagnosis and treatment of the common causes of vaginal discharge.
    - ii. Describe the causes, method of transmission, diagnosis and management and screening of the common sexually transmitted diseases. - Gonorrhea, syphilis, chlamydia, herpes, HPV and HIV.
    - iii. Understand the etiology, symptoms, diagnosis and management of acute and chronic salpingitis. Understand the sequelae of tubo-ovarian abscess, ectopic pregnancy and infertility.
  - b. Understand the anatomic and physiologic principles involved in pelvic relaxation and urinary incontinence.
    - i. Define cystocele, urethrocele, rectocele, enterocele and vaginal and uterine

- prolapse.
  - ii. Have a basic understanding of the principles involved in urodynamic testing.
  - c. Define endometriosis and have a basic understanding of the pathogenesis, methods of diagnosis and treatment. Understand the difference between endometriosis and adenomyosis.
  - d. Define chronic pelvic pain and discuss the pathogenesis, diagnosis and management.
4. Diseases of the breast
- a. Describe self-breast examination, physical examination of the breast, mammography and biopsy techniques.
  - b. Describe etiology, diagnosis and management of breast mass, nipple discharge and breast pain.
  - c. Describe the signs and symptoms associated with intraductal papilloma, fibrocystic disease, fibroadenoma, breast carcinoma and mastitis.
5. Neoplastic diseases
- a. Understand the principles underlying the various staging systems for malignant neoplasia
  - b. Describe the symptoms, physical findings, diagnostic techniques and management options for benign neoplasia and include method of metastatic spread for malignant neoplasia.
    - i. Gestational trophoblastic disease
    - ii. Benign diseases and carcinoma of the vulva
    - iii. Abnormalities of the pap smear, dysplasia, carcinoma in situ and invasive carcinoma of the cervix
    - iv. Uterine leiomyoma, carcinoma of the endometrium and uterine sarcoma v. benign and malignant lesions of the ovary
6. Human sexuality
- a. Define female and male sexual response, modes of sexual expression, sexual assault and domestic violence.
7. Preventive Care
- a. See section on primary care
8. Procedures



